



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

August 30, 2011

Via E-mail

J. Gregory Holloway
Vice President, General Counsel and Secretary
USA Compression Partners, LP
100 Congress Avenue, Suite 450
Austin, Texas 78701

**Re: USA Compression Partners, LP
Amendment No. 1 to Registration Statement on Form S-1
Filed August 8, 2011
File No. 333-174803**

Dear Mr. Holloway:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Summary, page 1

1. We note your response to comment nine in our letter dated July 7, 2011, as well as your assertion that you "believe [you] are one of the largest independent providers of compression services in the U.S." Please revise to provide the basis of such belief, such as your experience in the industry or a review of the public filings of your competitors, as well as the metric you are using in making this evaluation.

Capitalization, page 44

2. Refer to the head note for “as adjusted.” We note your reference to sections under “Summary – Partnership Structure and Offering Related Transactions” and the “Use of Proceeds” in explaining for what has been adjusted. In the next amendment, please provide full disclosures to enhance transparency on what has been adjusted rather than just citing the relevant sections.

Management of USA Compression Partners, LP, page 109

3. We note your response to comment 21 in our letter dated July 7, 2011. Please provide disclosure which clarifies the relationship between the discussion of conflicts here and the discussion which begins on page 130, such as a cross reference to the latter discussion.

Security Ownership of Certain Beneficial Owners and Management, page 126

4. Please revise footnote (1) to clarify which natural persons have voting and/or investment power over the shares held by USA Compression Holdings.

Unaudited Pro Forma Financial Statements, page F-2

(2) Pro Forma and Adjustments, page F-6

2(f) and 2(h), pages F-6 and F-7

5. We note your response to comment 36 in our letter dated July 7, 2011. Adjustments 2(f), 2(h) and 2(i) appear to be more akin to anticipated events and an extension of the notion of directly attributable. Please revise your presentation to remove these adjustments. Refer to Rule 11-02(b)(6) of Regulation S-X.
6. Refer to the table within footnote 2(g). Please revise caption from “Predecessor” to “Predecessor/Historical” in next amendment to Form S-1.

Historical Financial Statements, page F-10

Notes to Consolidated Financial Statements – December 31, 2010, 2009, 2008, page F-15

(1)The Partnership, Nature of Business, and Recent Transactions, page F-17

7. We note your response to comment 42 in our letter dated July 7, 2011 and your reliance on the guidance within ASC 805-20-55-50 for not recording the \$3,906,716 in stock compensation expense and \$4,906,870 in acquisition related costs in the predecessor period. It also appears that you have not recorded these material expenses in the

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successor period financial statements. We are unclear how the cited authoritative accounting literature is on point in terms of supporting the accounting for the stock compensation expenses and the acquisition related costs in your situation. In this regard, please explain to us and disclose in more detail, the facts and circumstances surrounding the stock compensation expense and the acquisition related costs including whether the acquirer or acquiree initiated and incurred the charges. Also explain to us exactly the meaning of your statement that "... \$8,703,588 of costs has been reflected on the black line" and the related accounting. Advise us how you consider the guidance within ASC 805-10-55-18, ASC 805-30-55-6 to 13 and ASC 718-20-35-7 to 8 in supporting your accounting. We may have further comments.

You may contact Scott Stringer, Staff Accountant, at (202) 551-3272 or Andrew Mew, Accounting Branch Chief, at (202) 551-3377, if you have questions regarding comments on the financial statements and related matters. Please contact Ronald E. Alper, Staff Attorney, at (202) 551-3329, Lilyanna Peyser, Staff Attorney, at (202) 551- 3272, or me, at (202) 551-3720, with any other questions.

Sincerely,

/s/ Lilyanna L. Peyser for

James Allegretto
Senior Assistant Chief Accountant

cc: Sean T. Wheeler, Esq.
Latham & Watkins LLP